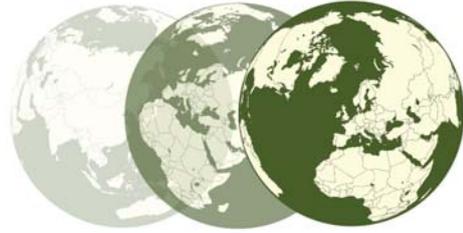


# The Centre for International Public Health Policy



## **Briefing for the Chief Medical Officer on child and adolescent injury surveillance in Scotland and sport**

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### **Introduction**

Injury is the principle cause of childhood mortality throughout the European Union.<sup>1</sup> In 2005 in Scotland, there were 30 deaths from injury in children under the age of 15 years, 20 of which were unintentional, the other 10 classified as intentional or undetermined. Excluding infants, injuries were responsible for almost 20% of all mortalities among the under 15s in Scotland in 2005.<sup>2</sup>

Unintentional injury is the main cause of emergency hospital admissions for under 15s in Scotland, accounting for one in five of all such admissions.<sup>3</sup> Each year unintentional injuries to children alone are estimated to cost the NHS in Scotland £40m, while the cost to society as a whole is estimated to be around £400m.<sup>4</sup>

An estimated one in five non-fatal unintentional injuries in children result from sport or recreational activity and almost a third occur in a place used for sport, play or recreation.<sup>5</sup> It is anticipated that the 2012 London Olympics and Paralympics and the 2014 Glasgow Commonwealth games will increase levels of sporting activity among children throughout the UK and in turn reverse the decline in physical activity and fitness<sup>6</sup> and high levels of childhood obesity.<sup>7</sup> But the health benefits of increased sporting activity have to be accompanied by measures which minimise risk of injury. More than half the benefits of physical exercise may be lost through injuries which can result in the abandonment of sport activity altogether.<sup>8</sup>

### **State of play on injury surveillance**

There is no UK wide surveillance of injuries since the discontinuation of the DTI run HASS and LASS home and leisure injury surveillance systems in 2002. Only Wales has an injury surveillance system. Scotland is the only UK country to have signed up to the Child Safety Action Plan project (CSAP), part of the European Commission public health programme's injury prevention network. Scotland has been judged to have excellent capacity for addressing child safety but currently lacks the necessary data and surveillance to perform a proper analysis on the true burden of child and adolescent injuries.<sup>9</sup>

There is an injury recording facility available on the nationally procured EDIS A&E system and the injury dataset which has been designed as part of the National Clinical Dataset Development

Programme (NCDDP), but they do not complement each other sufficiently and there are gaps in data recording especially for cause of injury and risk factors.

A pilot project is currently being set up by Strathclyde Police's Violence Reduction Unit (VRU) in three hospital A&E sites in Lanarkshire to record injuries arising from assault. It is anticipated that the results from this pilot project will be available some time in 2009 and will be looked at by the Justice and Health ministries of the Scottish Government with a view to national implementation.

### **What is to be done?**

- **High level multi-agency working and strategy development for child injury surveillance.**  
The Child Safety Action Plan for Scotland steering group is chaired by the Royal Society for the Prevention of Accidents (RoSPA) and meets regularly to discuss Scotland's strategy as part of the European project. There is a need for high level political and medical/social professional membership and financial support for this body in order to develop a strategic plan and to have some real effect.
- **Develop a child injury surveillance system which complements child health systems**  
A high level interagency group should be established with a remit of auditing the current data and systems used for childhood injury data collection and prevention work and to develop and implement a surveillance system. This should link to the Child Safety Action plan. The NCDDP injury dataset is a first step forward and could be used as a minimum dataset for injury data collection which can be added to as each agency requires. It needs to incorporate WHO guidance and also complement the EDIS injury data set. A model similar to this has been adopted and developed in some European countries.<sup>10</sup>
- **Promote action research and development work.**  
The Lanarkshire VRU project will provide useful data on intentional injuries which result in A&E attendance. The pilot should be expanded to collect data on all injuries, intentional and unintentional on children and adults by cause. Data from this pilot could then be used to inform a potential project in general injury surveillance throughout Scotland.
- **Sports injuries surveillance in schools.**  
There are at least two school based sport injury surveillance systems in operation in the USA<sup>11</sup><sup>12</sup> and such a project is currently underway in New Zealand.<sup>13</sup> A pilot project should be set up in Scotland to assess the feasibility and usefulness of such a system to complement the A&E based injury surveillance strategy.
- **Ad hoc studies.**  
The Scottish Rugby Union has a partnership with Lothian Health board to implement rugby coaching in schools in deprived communities. Lothian health board has committed £80,000 to this partnership. However the contract does not include surveillance and monitoring of injuries and causes. Given that children in lower socioeconomic areas have higher rates of injury it would be tragic if rugby coaching were to add to unintentional injuries. Scottish Rugby Union has an injury form (IRU) which is used in schools to record injuries sustained by students while playing rugby. This should be rolled out across Scotland, at least in the first instance across schools in Glasgow and Edinburgh and piloted and linked to education and training projects. These data should be linked to A and E data and HSE data to ascertain the reliability and completeness of current data systems.

- **International experience and systematic reviews of evidence on surveillance systems and data systems.**

Sweden, Netherlands and Denmark have well established injury surveillance systems and have the lowest rates of child and adolescent mortality from unintentional injury in Europe.<sup>14 15</sup> A review/fact-finding mission to these countries and the forging of links with experts in the field would be beneficial to the CSAP strategy in Scotland.

- **Attitudes to injury among coaches, staff parents and pupils.**

There is a strong culture that injury is a normal and acceptable part of growing up; don't wrap your children up in cotton wool. However, there are health protection injuries around exposing children to unnecessary harm and cultures of harm. Qualitative research and work has been done and a review of the evidence is needed and a review of how that work is currently incorporated into education materials and teaching and training strategies for schools, the NHS, social services, parents and children.

In summary there have been many initiatives around child injury prevention and lots of time and energy invested in setting up bodies to review strategies and policies. However, many of these have not progressed and there does appear to be a lack of central political support. What is needed now is action research and multi-agency working to develop a comprehensive childhood injury surveillance system to inform prevention strategies. Scotland needs to progress to the level of Sweden, which has both the highest level of sport participation in Europe<sup>16</sup> and half the rates of adult obesity level of the UK.<sup>17</sup>

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<sup>1</sup> Morrison A, Stone DH. Unintentional childhood injury mortality in Europe 1984-93: a report from the EURORISC Working Group. *Inj Prev* 1999;5(3):171-176.

<sup>2</sup> Child Health. Childhood mortality. ISD Scotland. 2008. <http://www.isdscotland.org/isd/4339.html>

<sup>3</sup> Unintentional injuries. ISD Scotland. 2008.

[http://www.isdscotland.org/isd/uichildren.jsp?pContentID=4428&p\\_applic=CCC&p\\_service=Content.show&](http://www.isdscotland.org/isd/uichildren.jsp?pContentID=4428&p_applic=CCC&p_service=Content.show&)

<sup>4</sup> Child Safety Strategy. Preventing unintentional injuries to children and young people in Scotland. 6-12-2007. Child Safety Action Plan.

<sup>5</sup> The Scottish Health Survey. Volume 3: Children. Chapter 7. Accidents. Bromley C, Sproston K, Shelton N, editors. 25-11-2005. The Scottish Executive.

<sup>6</sup> Policy department. Structural and Cohesion Policies. Current situation and prospects for physical education in the European Union. 12-2-2007. European Parliament.

<sup>7</sup> Scottish Public Health Observatory. Obesity in Scotland. An epidemiology briefing. 2007.

<sup>8</sup> Joint initiative on sports injury prevention. Eurosafe 2007.

[http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/wwwVwContent/1EDB  
AB17BBB092D9C125738400374C9D?opendocument&context=4F5A27582A  
3C7675C12571810050DCE6](http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/wwwVwContent/1EDBAB17BBB092D9C125738400374C9D?opendocument&context=4F5A27582A3C7675C12571810050DCE6)

<sup>9</sup> EUROSAFE. Child safety report card. 2007. Scotland. 2007. European Child Safety Alliance.

<sup>10</sup> Stone D, Morrison A, Roulston C, and the EURORISC Working Group. Final Project Report of the European Review of Injury Surveillance and Control "The EURORISC Project". 2003. PEACH Unit, Glasgow University.

<sup>11</sup> Comstock RD, Yard EE, Knox CL, Williams CM. Rugby RIO (Reporting Information Online) high school: Internet-based surveillance of injuries sustained by US high school rugby players. Summary report. 2006.

<sup>12</sup> National Collegiate Athletic Association Injury Surveillance System (NCAA ISS). National Collegiate Athletic Association (NCAA) 2007.

[http://www1.ncaa.org/membership/ed\\_outreach/healthsafety/iss/index.html](http://www1.ncaa.org/membership/ed_outreach/healthsafety/iss/index.html)

<sup>13</sup> Sport and Recreation. Injury Prevention Research Unit (IPRU) 2007.

<http://www.otago.ac.nz/ipru/Research/Sport.html>

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<sup>14</sup> Stone D, Morrison A, Roulston C, and the EURORISC Working Group. Final Project Report of the European Review of Injury Surveillance and Control "The EURORISC Project". 2003. PEACH Unit, Glasgow University.

<sup>15</sup> EUROSAFE. Child Safety Report Card 2007. Europe. Summary for 18 countries. 2007. European Child Safety Alliance.

<sup>16</sup> Eurobarometer special survey, EB60.0, 'Les citoyens de l'union européenne et lesport'. European Commission. 2001. [http://europa.eu.int/comm/public\\_opinion/archives/ebs/ebs\\_197\\_fr\\_summ.pdf](http://europa.eu.int/comm/public_opinion/archives/ebs/ebs_197_fr_summ.pdf)

<sup>17</sup> How does Sweden compare. OECD Health Data 2005 2001.  
<http://www.oecd.org/dataoecd/15/25/34970222.pdf>